

specification paragraph being changed is provided in one or more accompanying pages separate from this amendment in accordance with 37 CFR § 1.121(b)(1)(iii).

b3

In certain applications, it may be desirable that the conductive plugging material be a semiconductive material having opposite type conductivity enhancing dopant impurity as compared to the conductivity type impurity within the semiconductive material of the gate. For example where the gate is heavily doped to achieve conductivity with n-type material, in some applications it might be desirable to provide a conductively doped contact plug to that gate with p-type material. Unfortunately, the different dopant types can easily cross-diffuse relative to one another through the silicide which can lead to no conductive connection. One prior art solution to avoiding this diffusion is to initially line the contact opening with a very thin layer of an electrically conductive diffusion barrier material, such as TiN. Subsequently, the remaining portion of the opening is filled with conductively doped polysilicon to provide the desired electrical connection with the transistor gate.